

Nuclear Science and Security Consortium's

# Virtual Scholar Showcase

Featuring research presentations from NSSC graduate students and postdoctoral fellows. Presenters will soon be transitioning to the workforce and aim to pursue careers at US DOE National Laboratories.

See website for student CVs and links to presentations:  
<https://nssc.berkeley.edu/events-and-programs/nssc-conferences/nssc-virtual-scholar-showcase/>

## Schedule for Tuesday, June 2nd, 2020 8:15 am – 11:50 am PST (11:15 – 2:50 pm EST)

### *Nuclear and Particle Physics and Nuclear Policy*

<i>Timing (PST)</i>	<i>Presenters</i>	<i>Institution</i>	<i>Topic</i>
8:15 am	–	–	Online Meeting Begins
8:30 – 8:35	Dr. Bethany Goldblum	University of California, Berkeley	Welcome and Introductory Remarks
8:35 – 9:00	Prof. Jasmina Vujic	University of California, Berkeley	Nuclear Science and Security Consortium Program and Metrics
9:00 – 9:20	Andrea Richard	Michigan State University	Indirect Neutron-Capture Constraints for Basic Research and Applications
9:20 – 9:35	<i>break</i>	–	–
9:35 – 9:55	Adriana Sweet	University of California, Berkeley	Statistical Nuclear Properties of <sup>93</sup> Sr for National Security Applications
9:55 – 10:15	Vincent Fischer	University of California, Davis	Neutron Multiplicity and New Technologies with ANNIE
10:15 – 10:35	Katherine Childers	Michigan State University	Validation of an Indirect Method for Constraining

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10:35 - 10:50	<i>break</i>	-	Neutron-Capture Cross Sections
10:50 - 11:10	Eric Matthews	University of California, Berkeley	Independent and Cumulative Fission Yield Covariance Matrices for 61 Compound Systems
11:10 - 11:30	Roy Ready	Michigan State University	Upgrades for an Improved Measurement of the Electric Dipole Moment of Radium-225
11:30 - 11:50	Andrew Reddie	University of California, Berkeley	Experimental Wargaming at the Nuclear Threshold

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**Schedule for Wednesday, June 3rd, 2020** 8:15 am – 12:20 pm PST (11:15 – 3:20 pm EST)

### *Radiochemistry and Forensics*

<i>Timing (PST)</i>	<i>Presenter</i>	<i>Institution</i>	<i>Topic</i>
8:15 am	-	-	Online Meeting Begins
8:30 – 8:35	Dr. Bethany Goldblum	University of California, Berkeley	Welcome and Introductory Remarks
8:35 – 8:50	Prof. Jasmina Vujic	University of California, Berkeley	NSSC Research Overview
8:50 – 9:10	August Ridenour	George Washington University	Metal-Organic Frameworks as a Platform for Probing Transplutonium Electronic Structure and Signatures
9:10 – 9:30	Mark Straub	University of California, Berkeley	New Precursors for Actinide Nanomaterials
9:30 – 9:50	Mariah Ramirez	Texas A&M University	Safeguards Analysis for Neptunium-237 in High-Level Used Fuel Waste Through Computational and Radiochemical Methods
9:50 – 10:05	<i>break</i>		

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### *Radiation Detection and Nuclear Instrumentation*

<b>Timing (PST)</b>	<b>Presenter</b>	<b>Institution</b>	<b>Topic</b>
10:05 – 10:25	Aaron Nowack	University of Tennessee, Knoxville	3D Modelling of Induced Fission Chains in Uranium Assemblies for Associated Particle Imaging Systems
10:25 – 10:45	Juan Manfredi	University of California, Berkeley	Organic Scintillator Characterization for Neutron Detection
10:45 – 11:05	J.R. Powers-Luhn	University of Tennessee, Knoxville	Neural-net-based imager offset estimation in fieldable associated particle imaging
11:05 – 11:20	<i>break</i>	–	–
11:20 – 11:40	Joshua Smith	University of Tennessee, Knoxville	Synthesis of Li-containing garnet ceramics for dual-mode scintillators
11:40 – 12:00	Jake Hecla	University of California, Berkeley	Measurements of Attenuation and Scattering in WbLS
12:00 – 12:20	Mairead Montague	University of Tennessee, Knoxville	Radiation Hardness Characterization of LKH-5 Scintillating Glass